DOCUMENT RESUME

ED 189 409 CE 026 030

TITLE Competency Based Education Inservice for Part Time Community College Occupational Education Teachers. Program Goals or Competencies. Module #1.

INSTITUTION Washtenaw Community Coll., Ann Arbor, Mich.

SPONS AGENCY Michigan State Dept. of Education, Lansing. Vocational-Technical Education Service.

NOTE 78p.: Parts of this document will not reproduce well due to light and broken type. For related documents see CE 025 031-034. Prepared in collaboration with Rande, Ltd., Research and Development in Education.

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS Behavioral Objectives; Community Colleges; *Competence; *Competency Based Education; Competency Based Teacher Education; *Educational Objectives; *Inservice Teacher Education; Learning Activities; Learning Modules; Minimum Competencies; Part Time Faculty; *Program Development; Tests; Two Year Colleges; *Vocational Education

ABSTRACT

This self-instructional, self-paced module is the first of five in the series, Competency Based Education Inservice for Part Time Community College Occupational Education Teachers. (See note for other modules.) Its purpose is to enable the teacher to develop and write program goals and to organize them sequentially into courses of instructional units. Contents include these sequential elements: introductory material, including performance and enabling objectives and background information (such as time duration); exemption, prerequisite skills, and exit tests; a series of learning experiences corresponding to enabling objectives with a test and feedback section for each experience; and a community college application section. This final section provides examples of the concept in this module applied to a variety of Community College Occupational Programs and discusses special considerations for community college instructors. A list of action verbs for use in program goals is appended. (YLB)

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PROGRAM GOALS OR COMPETENCIES

module #1

SELF INSTRUCTION MATERIALS IN-SERVICE PART-TIME COMMUNITY COLLEGE TEACHERS

PROJECT TITLE:

COMPETENCY BASED EDUCATION INSERVICE FOR PART TIME COMMUNITY COLLEGE OCCUPATIONAL EDUCATION TEACHERS.

PROJECT NUMBER:

3256 - 7197

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This project will orientate part-time community college teachers to the mission, nature, and purpose of Michigan Community College Occupational Technical Education, and the use of Competency Based Education.

This project was developed by Washtenaw Community College, Ann Arbor, Michigan in cooperation with Rande Ltd., Research and Development in Education, consultants responsible for adapting Michigan Department of Education CBE III materials for this project.

FUNDED BY: THE MICHIGAN DEPARTMENT OF EDUCATION

VOCATIONAL TECHNICAL SERVICE

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PREFACE

The materials you are about to study is one of six modules in an instructional sequence for community college instructors. They are:

0. Orientation to Michigan Community Colleges
1. Program Goals or Competencies
2. Performance Objectives
3. Objective-Referenced Testing
4. Selecting Learning Activities
5. Follow-up and Evaluation

Each module can be covered as a unit. For comprehensive knowledge of the elements of competency-based education, as it applies to the community college, all six modules should be completed. These instructional modules and their supporting materials have been designed to allow you to work at your own pace in a location of your choice.

Each module contains the sequential elements which have been color coded to highlight each component:

1. Introductory Material.....Yellow
   (including Performance Objectives)

2. Tests (Exemption, Prerequisite Skills, and
   Exit Tests).....Green

3. A Series of Learning Experiences.....White
   (with a test and feedback section for
   each experience)

4. Appendices.....Blue

5. Community College Application.....Pink

Therefore, you will notice that only the white pages contain the information and exercises you will need to complete to learn each knowledge, skill, or judgment. The remaining pages are provided for your individual use and information as you work through the module.

The examples provided in this module relate to a variety of educational settings. However, you will find that the pink Community College Application section provides examples of the concept in this module applied to a variety of Community College Occupational Programs. Futhermore, this application section includes a discussion of special considerations for community college instructors.

> Read the beginning of the pink section before starting the module; then read the second part of the pink section after completing the module. In this way the Community College Application section should help you develop a CBE framework for your area of specialization.

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I. INTRODUCTION

Effective instruction has always started with sound planning. In Competency-Based Education (CBE), planning starts with the identification and writing of program goals or competencies.* The input, the identification of the goals, may come from:

1. a follow-up study
2. a community survey
3. task analysis
4. your department
5. citizen committees (advisory committees)
6. committees from within your building
7. committees from within your school system
8. national, state, professional or governmental sources
9. workshops
10. other schools

However, the actual writing of competencies usually becomes the duty of in-service teachers and administrators.

Program goals are those competencies which the student is required to demonstrate to successfully complete an instructional program. Such competencies grow out of the needs of the individual student, the community, and society and are the evidence of the application of knowledge, skills, and judgments in one's daily life. They give direction to

---

*The terms "program goals" and "competencies" are used synonymously in this series of modules. The terms are used to define "the knowledge, skills, or judgments needed to be demonstrated at a pre-specified level of proficiency before a person is recommended as a graduate of a specific program."

the development of courses or units of learning; they are the unifying factor among the several courses; in a program they prescribe the development of performance objectives for each course. Furthermore, they establish the parameters of all the programs found in the school curricula.

What are the elements of program goals? Where are they used, and how do you write them? You learn the answers to these questions in this module.

II. PERFORMANCE OBJECTIVES

When you complete this module, you will have achieved the following objectives:

Terminal Performance Objective 1

Using your school setting or department (i.e., elementary, alternative education, English, science, business education), a program in that setting (i.e., college preparatory) and the criteria listed below, you will write a set of program goals (competencies) for a specific instructional program. Competencies must

a. be general
b. be student oriented
c. be behaviorally stated
d. describe student outcomes
e. not refer to conditions or evaluating criteria

Terminal Performance Objective 2

Using the program goals developed for terminal performance objective 1, you will organize these statements into courses or instructional units which reflect the sequence of instruction in your program.

Enabling Objectives

1. You will identify accurately specific instructional programs for terminal performance objective 1.

2. Given a list of statements, you will correctly identify the rationale for developing program goals.

3. Given a list of characteristics, you will correctly identify the essential characteristics of program goals.

4. Given a list of statements, you will correctly identify those which are program goals.

5. You will identify at least five processes used to derive program goals for a specific instructional program.

6. You will identify your department or level and a specific instructional program; in addition, you will identify the grade level and pertinent student characteristics for that program as specified in this module.

III. BACKGROUND INFORMATION

A. This instructional module is designed to help you demonstrate the following program goal:

1. IDENTIFY DEPARTMENTAL PROGRAM GOALS*

B. This module should take approximately two hours to complete. This estimated time may help you to pace yourself.

C. This module is self-contained; you do not need other books nor equipment.

---

*These program goals were developed by the teachers who participated in the Michigan COAST Project 1974-75. This was a statewide effort to design a model competency-based teacher education program for all secondary teachers. This project was led by Wayne State University and Ferris State College.

IV. EXEMPTION TEST

A. Rationale

A basic concept of competency-based education is to provide instruction to meet the needs and abilities of each individual student. A first step is to determine whether the student, you in this instance, needs this instruction or if you already have the knowledge, skills, or judgments in question. So, you're now being asked to take an Exemption Test. In general, an Exemption Test is administered to assess achievement of course performance objectives.

This test will not affect your class standing, but it helps you in two ways:

1. The Exemption Test covers the learning tested in the Exit Test. So, you get to take the test in advance.

2. By succeeding on portions, or all of, the Exemption Test, you may bypass these portions of the instruction. Then, you can spend your time on other parts of the program.

B. Directions for the Test

1. Do you know what program goals are? ___
2. Have you ever written program goals? ___

If YES, turn to the next page of this module for the Exemption Test.	If NO (to either one or both questions), do not go on with the test. Move on to the Prerequisite Skills Test, p. 17.

Module 1 - Program Goals

EXEMPTION TEST RESPONSE SHEET

Student's Name: _____

DIRECTIONS:

1. The Exemption Test assesses achievement of this module's performance objectives. It is administered before instruction; passage exempts the learner from that instruction.
2. Use this test before working through the module.
3. Write in ink.
4. Do not write on, or use, this section after you have read the module or completed the learning experiences.

Enabling Objective #1

On the list below, check those that are instructional programs.

_____ a. College Preparatory English

_____ b. Physical education courses

_____ c. This module

_____ d. One history course

_____ e. Architectural drafting

Enabling Objective #2

On the list below, check those which are rationales for developing program goals.

_____ a. Program goals give direction to the development of the other components in a specific instructional program.

_____ b. Program goals identify the knowledge, skills, and judgments the students will have at the end of the specific instructional program.

_____ c. Program goals identify the knowledge, skills, and judgments the students will have at the end of the specific instructional course.

_____ d. Program goals define conditions and criteria of the desired performance.

_____ e. Program goals provide a cohesive framework for the instructional program and help avoid fragmentation.

Enabling Objective #3

On the list below, check the essential characteristics of program goals.

_____ a. Program goals are general, student-oriented, behavioral statements.

_____ b. Program goals identify conditions.

_____ c. Program goals describe the desired outcomes of the instructional program.

_____ d. Program goals identify the evaluating criteria of the program.

_____ e. It takes two or more performance objectives to demonstrate a program goal.

_____ f. A program goal usually appears in more than one course.

Enabling Objective #4

On the list below, check the program goal statements.

_____ a. The student will identify sources of employment related to his area.

_____ b. Given a list of countries, the learner will name the capitals with 90% accuracy.

_____ c. The program will provide experiences in drawing.

_____ d. The students will secure positions in retailing.

_____ e. Learners will demonstrate basic typing skills.

_____ f. Students will get the opportunity to use a knife.

_____ g. Students will demonstrate the ability to sell a dress.

_____ h. The students will present arguments verbally.

_____ i. Students will understand about U.F.O.'s.

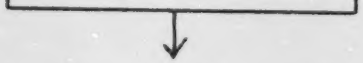
_____ j. Learners will be prepared for jobs in our society.

Enabling Objective #5

List five ways in which you can arrive at program goals for a specific instructional program.

1. _____
2. _____
3. _____
4. _____
5. _____

Enabling Objective #6



Fill in the following for a particular program in which you teach:

Name of department or level: _____

Name of specific instructional program: _____

_____

Grade level: _____

Student characteristics: _____

_____

Terminal Performance Objective 1

Write a minimum of 15 program goals for the specific instructional program (or area) which you identified above.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

Terminal Performance Objective 2

List the courses in your program in the sequence in which they are taught. Then match the program goal statements to the courses to which they relate. Identify the specific goals for which one or more performance objectives will be taught in the course.

Course Sequence	Specific Goals
1st Course:	
2nd Course:	
3rd Course:	
4th Course:	
5th Course:	
6th Course:	
7th Course:	
8th Course:	

To evaluate yourself on the Exemption Test, turn to the check list that follows.

Feedback

Use this check list to evaluate yourself. Go over each item in the list and see if all of your responses were correct.

Check List:

Enabling Objective #1

The specific instructional programs are:

✓ a. College Preparatory English

____ b. Physical Education courses. No, because these are separate courses and a series of two or more are not required.

____ c. This module. No, this is an instructional unit. At best it is only part of a course.

____ d. One history course. No, this is a single course. It takes at least two and usually more courses for an instructional program.

✓ e. Architectural drafting

Were you correct? ____ Yes ____ No

Enabling Objective #2

✓ a. Program goals give direction to the development of the other components in a specific instructional program.

✓ b. Program goals identify the knowledge, skills, and judgments the student will have at the end of the specific instructional program.

____ c. No, because this statement refers to a single course.

____ d. No, conditions and criteria are not part of a program goal.

✓ e. Program goals provide a cohesive framework for the instruction and help avoid fragmentation.

Were you correct? ____ Yes ____ No

Enabling Objective #3

The essential characteristics of program goals are:

___✓___ a. Program goals are general, student-oriented behavioral statements.

_____ b. No, program goals do not identify conditions.

___✓___ c. Program goals describe the desired outcomes of the instructional program (the competencies the student will demonstrate).

_____ d. No, program goals do not identify criteria.

___✓___ e. It takes two or more performance objectives to demonstrate a program goal.

___✓___ f. A program goal usually appears in more than one course.

Were you correct? _____ Yes _____ No

Enabling Objective #4

Did you identify all the program goal statements?

_____ Yes _____ No

This key will help you check.

Key:

___✓___ a. program goal

_____ b. It is a performance objective--gives content and criteria.

_____ c. It is not student oriented, an essential of a program goal.

___✓___ d. program goal

___✓___ e. program goal

_____ f. It identifies the process, not outcomes.

_____ g. This is too specific.

✓ h. program goal

____ i. Cannot measure a student's understanding (is not stated behaviorally).

✓ j. program goal

Enabling Objective #5

You can arrive at program goals for specific instructional programs through one or more of the following processes. You should have named any five of the following:

1. a follow-up study
2. a community survey
3. task analysis
4. your department
5. citizen committees (advisory committees)
6. committees from within your building
7. committees from within your school system
8. national, state, professional or governmental sources
9. workshops
10. other schools

Were you correct? ____ Yes ____ No

Enabling Objective #6

Did you identify:	YES	NO
a. Name of department or level?	___	___
b. A specific instructional program?	___	___
c. The grade level of instruction?	___	___
d. Information about the students who will be in the program (i.e., age, race, sex, special needs, etc.)?	___	___

Terminal Performance Objective 1

Did you write a minimum of 15 program goals:

	YES	NO	IF NO SPECIFY WHICH ONE
a. which were for the specific instructional program you identified?	___	___	_____
b. which were general?	___	___	_____
c. which were student-oriented, behavioral statements?	___	___	_____
d. which described the outcomes of a program?	___	___	_____
e. which did not refer to conditions or evaluating criteria?	___	___	_____

Terminal Performance Objective 2

	YES	NO
a. Did you list the sequence of courses in your total program?	___	___
b. Did you match the program goals with the appropriate courses?	___	___
c. Did some of your program goals appear in one or more courses?	___	___

Each part of this Exemption Test was related to an objective. If you mastered any part, you will be exempted from that portion of the learning experience. If you have a perfect score on the entire test, you are completely exempted, for you already have the skills and knowledge

presented in this module. If you did not do well, it will be necessary for you to complete the module. If you have any questions or need more information, see an instructor if one is available. If an instructor is not available, go to an expert in your school system for help.

V. PREREQUISITE SKILLS TEST

A. Rationale

Many things learned in a program are based upon knowledge or skills previously learned; and unless a student remembers everything, he may have trouble with the new instruction. So, the next step is to take the Prerequisite Skills Test. It tests for skills and competencies upon which the instructional program is based but which are not directly taught in the course, hence they are prerequisite. The prerequisites for this module are some previous experiences which you most likely have had, so the "test" really covers basic data. Later in following the modules, you will see the role of Prerequisite Skills Tests in systematic, instructional planning.

B. The Test

1. Are you a teacher, administrator, or student? _____

2. Identify your department* or curriculum level.** _____

3. Identify your program in the above.

_____

*If a secondary teacher.
**If an elementary teacher.

C. Feedback

The objective for this module asked you to use your department and program as a basis to write program goals. The only prerequisites are:

1. That you are a teacher, an administrator, or a student.

2. That you can identify and relate to a department at the elementary, secondary, or post-secondary levels.

VI. LEARNING EXPERIENCES

Enabling Objective #1

You will identify accurately specific instructional programs for terminal performance objective 1.

What is a specific instructional program?

The Michigan Department of Education defines it as:

> *an organization of subject matter and interrelated learning experiences designed to lead students to achieve prespecified goals and objectives on a systematic basis. A program usually consists of two or more courses.*

All in-service teachers are familiar with specific instructional programs which take a series of courses or semesters of work to complete. The goals or competencies for the designated courses are usually interrelated. For example, a series of related English courses make up a specific English program. Woodworking, metalworking, and drafting courses are included in an Industrial Arts program. These illustrations could each be considered a specific instructional program.

Before one really has a program, however, one must identify a set of competencies or program goals. These competencies or goals will delineate or describe the specific competencies that a learner should be expected to demonstrate as evidence of successful completion of the program.

Any specific instructional program may vary in the length of time it takes to complete. Such differences may be due to the number of competencies making up the specific instructional program. In other words, the number of competencies demanded of the student, not the number of courses in the program, determines the basic time parameters for completing a program.

> *Note: The word program, as used in this module, has a very special meaning, as you probably realize by now. Do not confuse general uses of the word with the special technical meaning it has in the theory of competency-based education. For example, this module is not a specific instructional program. It is but one task in an instructional unit. Likewise, a single elective course is not a program but a type of instructional unit.*

To summarize, a specific instructional program:

1. Usually consists of more than one course.
2. May vary in the length of time required to complete it from several terms to several years.
3. Is comprised of interrelated courses or learning experiences.

On the next page is the Response Sheet for Enabling Objective #1. Now try to identify a specific instructional program.

Response Sheet for Enabling Objective #1

On the list below, check the specific instructional programs.

_____ a. This module

_____ b. Occupational Child Care

_____ c. Typing I

_____ d. A series of related science courses

_____ e. Auto Mechanics II

_____ f. K-6 Social Studies

Now turn the page to the Feedback section and check your answers.

Feedback

The following are specific instructional programs:

____ a. This module is a single task which could be part of one course.

✓ b. Occupational Child Care

____ c. Typing I is a single course. A course is seldom, if ever, a program.

✓ d. A series of related science courses.

____ e. Auto Mechanics II is a single course. A course is seldom, if ever, a program.

✓ f. K-6 Social Studies

If you had no errors, move on to the next section of the module.

If you missed any of the above answers, go back and read this section of the module again.

Rationale for Developing Program Goals

Enabling Objective #2

Given a list of statements, you will correctly identify the rationale for developing program goals.

The development of a specific instructional program for a school or school system follows a plan:

1. Determine the general philosophy or rationale for the program.
2. Identify the needs of the students.
3. Develop program goals.

Program goals are written early in the planning stages of CBE program development. They are written after the needs and philosophy have been established by advisory groups or committees of various types. The identified needs become the bases for determining the specific competencies: knowledge, skills, and judgments the students should demonstrate at a prespecified level at the end of the instructional program.

The identified needs must be viable to at least three audiences:

1. The individual student. Students must accept the relevancy and vitality of a set of competencies. They must be sold on "what's in it for them" if they are going to be productive in their several classes.

2. The classroom teacher. Teachers must be involved in the development of goals or competencies they are expected to teach. They must know and accept the rationale for each competency. Few competencies will be taught effectively by teachers who do not believe in the total program.

3. The "publics" that work with the school leavers--other institutions of learning, or the employing community. If the school leavers cannot "produce" in their new environment, the "publics" will not support education. Higher education, business, industry and government are looking for specific competencies. These competencies can and should be integral goals of the various school programs.

Developing and writing good program goals at the start gives direction to the remainder of the planning. The program goals describe desired outcomes for a specific instructional program which can be organized into courses or semesters. Resources can then be committed to these goals and performance objectives written to support them.

The rationale for developing program goals are:

1. They are a first step and give direction to the development of the remainder of the program.

2. They identify the knowledge, skills, and judgments the students will demonstrate at the end of the specific instructional program.

3. They provide a cohesive framework for the instruction and help to avoid fragmentation.

4. They provide a basis for communication to students, parents, teachers, administrators, and all other publics. They communicate the purposes of a specific instructional program.

On the next page is the Response Sheet for Enabling Objective #2. Now try to identify the rationale for developing program goals.

Response Sheet for Enabling Objective #2

On the list below, check the statements which are rationale for developing program goals.

_____ a. Program goals identify the evaluating criteria of a program.

_____ b. Program goals identify the knowledge, skills, and judgments the students will have at the end of the specific instructional program.

_____ c. Program goals refer to specific conditions under which the instructional program will work.

_____ d. Program goals give direction to the development of the remainder of the instructional program.

_____ e. Program goals provide a communication process by identifying for a variety of publics the expected outcomes for the learner in a specific program.

Now turn the page to the Feedback section and check your answers.

Feedback

The following statements are rationale for developing program goals:

____ a. No, program goals do not contain criteria.

✓ b. Program goals identify the knowledge, skills, and judgments the students will have at the end of the specific instructional program.

____ c. No, program goals do not contain conditions.

✓ d. Program goals give direction to the development of the remainder of the instructional program.

✓ e. Program goals provide a basis for communication to a variety of publics the expected outcomes for the learner in a specific program.

If you had no errors, move on to the next section of the module.

If you missed any of the above answers, go back and read this section of the module again.

What are the Characteristics of a Competency?

Enabling Objective #3

Given a list of characteristics, you will correctly identify the essential characteristics of program goals.

Remember, we have defined a competency as "a knowledge, skill or judgment that needed to be demonstrated at a predetermined level of proficiency before a student is recommended as a graduate of a specific program."

Now that you know what a specific instructional program is, the definition of a program goal, and have a rationale as to why goals or competencies are written, you are ready to consider the characteristics.

> *Program goals are general, student-oriented behavioral statements which take the mastery of two or more performance objectives to demonstrate but do not refer to conditions or criteria.*

Definitions and characteristics help pin down meanings, but teachers, like all humans, need experience with an idea to really grasp it. So, too, with the basic concepts here. In some instructional plans readers have seen basic vocabulary used incorrectly. For instance, the term program goal has sometimes been confused with behavioral objective; and performance objectives have been used mistakenly to describe competency-based education. Further, all of these terms have been used to describe a learning activity.

This mixup in the meanings of key terms has led the Michigan Department of Education to specify the three necessary components of a performance objective:

1. Student performance (behaviorally stated)
2. The condition
3. The criteria

What are the comparable ingredients of a competency? Competencies:

1. Are general.
2. Are behavioral.
3. Describe student-oriented outcomes.
4. Do not refer to conditions or criteria.
5. Take two or more performance objectives to demonstrate.
6. Usually appear in more than one course.

Compare the two lists. What elements do the terms share?

1. Both are behavioral.
2. Both are student oriented.
3. Both describe desired outcomes (student competencies).

But, notice that performance objectives describe outcomes of a specific learning activity or activities--a part of a course; while program goals describe longer range outcomes, usually of a program that covers two or more courses.

What are some other differences? Performance objectives have conditions and criteria. Program goals do not refer to these two items. What are they? The conditions

of a performance objective include such constraints as time or materials that may affect or limit performance. It is the condition under which the behavior will be expected to occur. Criteria are the degree of performance that will be acceptable for successful completion of the objective.

Both competencies and performance objectives refer to behavior, but competencies refer to general accomplishments and performance objectives describe precise performance.

Look at the similarities and differences in these examples:

Program Goal

The student will translate Greek into English.

Performance Objectives

Given a paragraph of approximately 200 words written in Greek, the learner will translate it into English with no more than three errors.

Given a list of 20 Greek nouns, the learner will translate them into English in 20 minutes with no more than three errors.

Note that the above competency contains five essential elements that you must have in every competency statement you write:

1. General in nature
2. Student-oriented outcomes
3. Behaviorally stated
4. No conditions
5. No criteria

All competency statements require a minimum of two (and usually many more) supporting performance objectives. Secondly, because of the general, complex nature of competency statements, it usually requires the completion of two or more courses (each course containing one or more supporting performance objectives) before satisfactory evidence of a competency can be demonstrated. In other words, a competency is usually directly tied to, or related to, at least two courses via supporting performance objectives.

Now, let's look back at the two performance objectives for the competency: The student will translate Greek into English. It is obvious that many more than two objectives could have been written to describe the conditions and criteria for demonstrating the competency.

In summary, competency statements are general in nature, behaviorally stated, and identify the competencies the students will acquire in the instructional program. However, they do not indicate how they will be acquired or how they will be measured. Naturally, it usually takes more than a single course to complete a competency. If so, that competency will simply appear in more than one course.

Keeping concepts straight is a continuing job. In Module #2 you will study student performance objectives in more detail, and once again you will be reminded of the difference between program goals and performance objectives. You will probably develop feeling for the differences as you have more experience in writing both.

On the next page is the Response Sheet for Enabling Objective #3. See if you can identify the <u>essential characteristics</u> of competencies.

Response Sheet for Enabling Objective #3

Check the essential characteristics of program goals.

Program goals:

_____ a. Usually appear in more than one course.

_____ b. Are general, student-oriented behavioral statements.

_____ c. Take two or more performance objectives to demonstrate.

_____ d. Tell the conditions under which the student will work.

_____ e. Describe the desired outcomes for the specific instructional program.

_____ f. Identify criteria.

Now turn to the Feedback section and check your answers.

Feedback

The following are essential characteristics for program goals:

✓ a. Usually appear in more than one course.

✓ b. Are general, student-oriented behavioral statements.

✓ c. Take two or more performance objectives to demonstrate.

____ d. Tell the conditions under which the student will work.

✓ e. Describe the desired outcomes (student competencies) for the specific instructional program.

____ f. Identify criteria.

Remember, program goals do not refer to conditions or criteria and are not specific.

If you had no errors, move on to the next section of the module.

If you missed any of the above answers, go back and read this section of the module again.

Identifying Competencies

Enabling Objective #4

Given a list of statements, you will correctly identify those which are program goals.

Now that you know the definition of a competency, as well as the essential characteristics, you are ready to learn how to identify them. What are the criteria? Competencies should be:

1. General in nature. The competency statement should be general enough so that it requires two or more supporting performance objectives to demonstrate competence.

   Examples:

   (This)
   1. The student will use measuring instruments....
   2. The student will punctuate written communication....

   (Not This) The student will use a ruler.

   This statement is too narrow, too specific. It is more appropriate as the key phrase for a series of performance objectives that could be used to demonstrate a variety of measuring instruments.

   The student will punctuate a letter.

   This is also too specific. This could also be used as the key phrase for a series of performance objectives that could be used to demonstrate a variety of written materials (memos, letters, sentences, paragraphs, themes, etc.).

   Let's take a look at another general competency and see how this could encompass a number of other competencies.

(This) The student will demonstrate the techniques of applying for and securing a job.

(Not These)

1. Use test-taking techniques when taking a test....
2. Prepare a vita or resume....
3. Complete a job application form....
4. Participate in a job interview....
5. Write a thank you letter to a prospective employer....
6. Secure an appointment for a job interview....

Each of the above items have been used in career education programs as competency statements. Yet, it is apparent that the first illustration is general enough to encompass these six points (and probably others). Consequently, the first illustration would be an effective competency statement that is general in nature. It is one that could be used to generate a series of performance objectives that could well be taught in two or more courses.

2. Behavioral verbs. The competency statement should contain verbs which describe or suggest observable, measurable student outcomes. The more precise the verb, the more precise your communication to others. And, the more precise you can make your supporting performance objectives.

Examples:

(This)

1. The student will identify sources of....
2. Learners will design....

(Not This)

1. The students are to understand....
2. The students will enrich their....
3. Students will develop an appreciation of....

One of the key elements in both the writing of competencies and the writing of performance objectives is appropriate action verbs. However, the writer has to be positive that the action is real, is viable, and is really appropriate for his students in his community on the day they complete the program.

3. Student oriented. The competency statements should be written as a general statement, using a behavioral verb, in terms of student goals. Your purpose here is to describe in general terms the competencies the students should be able to demonstrate upon completion of a program, a program that consists of two or more courses, or two or more terms of work. Competencies that will describe to all concerned what the student will be learning.

   Examples:

   (This) 1. The student will repair a....

   2. The student will edit a....

   (Not This) 1. The teacher will provide....

   2. The course will cover the use of....

   We have always had goals and objectives in education. Often in the past, however, the emphasis has been placed on what the teacher will do or what the learner will do to achieve a goal. In a CBE program, competencies are more precise. They are designed to tell the student what he will be able to do as a result of completing a program. The how, or the methods the teacher uses, is still the teacher's prerogative.

4. Student outcomes. The competency statements should be written to describe a competency of the learner upon completion of the total instructional program. The set of competencies for an instructional program should describe the knowledge, skills, or judgments which are to be demonstrated. Competency statements must not describe learning activities.

   Examples:

   (This) 1. Students will repair and/or replace....

   2. Each student will demonstrate....

(Not This)

1. Learners will work on a real job....

2. Students will read Chapter III....

Remember the emphasis is on student performances as a result of instruction. It is not a statement of how the teacher will teach or how the student will learn.

5. No conditions or criteria. The competency statements should be written without reference to conditions (givens) or criteria (value judgments).

Examples:

(This)

1. The student will demonstrate business work habits....

2. Students will make career choices....

(Not This)

1. Given a book at the sixth grade reading level, the student will read approximately 1250 words in five minutes with no more than five errors in comprehension.

2. Given a set of career materials, the student will write an acceptable paper describing his first career choice.

The identification of competency statements is easier than writing such statements. However, the more adept you become in determining if a statement is technically correct, the easier it will be for you to write, or help others write competency statements for your instructional program. Let's review the primary criteria of a competency statement.

Competency statements should:

1. Be general statements--not too specific.
2. Be behaviorally stated using measurable verbs.

3. Be student oriented--not teacher or process oriented.
4. Identify the knowledge, skills, or judgments a student will have upon completion of the program.
5. Not include conditions or criteria.

In the appendix is a list of verbs that you might use when you first start to write program goals. As you progress, you will develop a list that will be more precise and more indicative of your program. There are also several sets of sample program goals that might be used as "thought starters" to help you do a more effective job.

On the next page is the Response Sheet for Enabling Objective #4. Now try to identify program goal statements.

Response Sheet for Enabling Objective #4

On the list below, check the program goals.

_____ a. The student will identify career choices.

_____ b. Given a list of tools and pictures of tools, the learner will match the name of the tool with the picture with 90% accuracy.

_____ c. The teacher will provide experiences in report writing.

_____ d. Students will be prepared to secure positions in the office occupations.

_____ e. Learners will demonstrate basic drafting skills.

_____ f. Students will have the opportunity to use a protractor.

_____ g. Students will demonstrate employable skills in graphic arts.

_____ h. Students will come to understand about the civil war.

_____ i. The student will demonstrate care of test tubes.

Now turn the page to the Feedback section and check your answers.

Feedback

✓ a. Program goal

____ b. Gives conditions and criteria. It's a performance objective.

____ c. Not student oriented.

✓ d. Program goal

✓ e. Program goal

____ f. Gives a process, not an outcome.

✓ g. Program goal

____ h. "Understand" is hard to measure. A behavioral verb was not used.

____ i. This is too specific. It should be expanded to include all laboratory equipment.

If you had no errors, move on to the next section of the module.

If you missed any of the above answers, go back and read this section of the module again.

How to Determine Competencies

Enabling Objective #5

You will identify at least five processes to derive program goals for a specific instructional program.

How do you identify competencies for a specific instructional program? These can be identified by using a variety of techniques. Some of these include:

1. Follow up
2. Community surveys
3. Task analysis
4. Your department
5. Citizen committees (advisory)
6. Committees from your building
7. Committees from your school system
8. National, state, professional or governmental sources
9. Workshops
10. Other schools

These methods can be used separately or combined for a more complete list.

One of the most potent devices used by American business is the consumer satisfaction survey. Successful businesses are constantly surveying samples of their customers to determine the quality or efficiency of their products. If the customers aren't satisfied, they will take their business elsewhere. Today, educators are being challenged by the consumers of their services--the graduates of the schools and the employers of these graduates.

Consequently, it is obvious that a fruitful source of data for program goals (or competencies) is the recent

graduate and those who work with or employ these graduates. The following are types of surveys that might be made.

1. Data from graduates. These data may be used for starting or revising competency statements. Your graduates are very cognizant of the knowledge, skills, and judgments needed for entering the world of work, starting a home, or continuing in education. They are especially aware of emerging or obsolescent competencies. Data may be obtained from surveys conducted by your school through mail, telephone, or personal interviews. You may also consider having your senior class interviewed (using a structured interview instrument). It makes their learning more effective when a person they can relate with describes the necessity for having specified knowledge, skills, and judgments which are included in your program.

2. Data from community. Another source of effective and "real" data input for viable competency statements is those persons who use or work with your graduates. Users would include employers. Employers are almost universally anxious to respond to inquiries from teachers concerning the effectiveness of the school's curricula. Employers are an excellent source of data on general skills, employability skills, and special and/or technical skills. Those who work with your students would include all types of post-secondary institutions. These persons would be most

interested in describing the strengths and weaknesses of your graduates--especially in terms of general education competencies. The same data-gathering techniques may be used for both of these groups as was identified in the first section.

3. Task analysis. There are a variety of techniques--and several audiences--that might be used in gathering this type of data. However, it may be feasible to collect such data as either a part of a community survey or a follow up of your own students. In either case, it will be important for you to collect task data from persons who have just entered the job(s) you are interested in surveying. If they have more training or more experience than your graduates will have, their tasks will be considerably different from the tasks that will subsequently be assigned to your graduates.

One simple way to collect such data may be part of your community survey. Simply ask selected individuals, employed in appropriate jobs, to "list the 6-10 most important tasks you perform on your job." It is assumed that you are collecting these data from employees who hold jobs related to the specific program you are developing. A sampling of entry-level employees--in person, by telephone, or by mail, should provide a substantive list of important tasks performed

by persons who are using competencies that should be learned in the training program. These specific tasks provide the data for you and/or your colleagues to develop a comprehensive set of program goals. This task process provides program goals that are task/role oriented and should be relevant to the current needs of your graduates. If this process is followed systematically, it provides for an updating, or feedback process, that keeps your program goals realistic. (This same process, of course, could be used with graduates of your program.)

The committee method is effectively used. Committees may be made up of teachers in the department that will have a part within the program, P.T.A. groups that have an interest in the program, advisory committees made up of experts or professionals who are knowledgeable of the demands of a particular area which the program will cover, and any special interest group that may want input at the beginning stages of the program development. Regardless of who composes the committee, the function is basically the same. The prime responsibility will be to identify what tasks or content should be included in a specific instructional program. Program goals will be written from this information which will specify the knowledge, skills, and judgments the student will be expected to demonstrate upon completion of the program.

The committee method is quite often used because of its versatility and because of the variety of participants that can be used. However, don't overlook other potential sources for at least providing input for your school as you begin considering the feasibility of preparing a list of program competencies. These include:

1. Workshops sponsored by local and state educational agencies
2. University courses
3. Products distributed by states--such as those available from the Michigan Department of Education
4. Periodical literature
5. Lists obtained from other schools with similar programs

A note of caution on all these latter processes, however. Be sure that you and your colleagues adapt, delete, change, or add any competencies that you feel do not meet your unique needs. Ultimately, someone has to do the actual writing, revising, and decision making. The closer these activities are to the actual users, the more potential there will be for a meaningful CBE program.

In summary, techniques were listed for identifying competencies. Several of these were discussed in detail, while a general statement was made concerning the use of a variety of committees. The primary difference in committees

is the composition of the membership. The most appropriate one depends upon your desires, your community and your--or your committee's--expertise. Finally, it was suggested that it is feasible in many cases to combine one or more techniques.

On the next page is the Response Sheet for Enabling Objective #5. See if you can identify the various methods of arriving at program goals.

Response Sheet for Enabling Objective #5

List at least five techniques you can use to identify program goals for a specific instructional program.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Now turn the page to the Feedback section and check your answers.

Feedback

The following are some ten techniques you could use to identify program goals.

1. Follow up
2. Community surveys
3. Task analysis
4. Your department
5. Citizen committees (advisory)
6. Committees from your building
7. Committees from your school system
8. National, state, professional, or governmental sources
9. Workshops
10. Other schools

If you had five or more correct answers, move on to the next section of the module.

If you did not have five or more correct answers, go back and read this section of the module again.

Procedure for Developing Program Goals

Enabling Objective #6

> You will identify your department or level and a specific instructional program; in addition, you will identify the grade level and pertinent student characteristics for that program as specified in this module.

The enabling objectives discussed to this point have dealt with definitions, rationale, and criteria of programs and program goals. They are knowledge objectives. The remaining enabling objectives prepare you to develop and write program goals. They are the application objectives of this module.

As you go through this section, you will get examples. You will be asked to apply your knowledge in the space provided. By doing this, you will be going through a step-by-step procedure in developing and writing program goals for a program in your department.

The following three components will aid you in identifying a specific instructional program for which you will be developing program goals:

> Name of Program: This will be the name of the specific instructional program and should be in your department subject area.
>
> Grade Level: This is to aid you in keeping your program goals aimed at the correct population.

Student Characteristics: This may include age, sex, race, social, ethnic, special interests, or common conditions of the population. More importantly, this is a definition of student prerequisite skills.

Example 1:

Department Name or Level: Middle School English

Name of Program: General English

Grade Level: 4th-8th Grades

Student Characteristics: 9-13 years of age, C or better grades

Example 2:

Department Name or Level: Industrial Arts

Name of Program: Architectural Drafting

Grade Level: 10th-12th Grades

Student Characteristics: 15-18 years of age, interested in making Architectural Drafting a career

Example 3:

Department Name or Level: Elementary

Name of Program: Language Arts

Grade Level: K-3

Student Characteristics: 5-8 years of age, variety of levels of readiness, but generally enthusiastic

On the next page is the Response Sheet for Enabling Objective #6. See if you can identify the specific instructional program for which you will be writing program goals.

Response Sheet for Enabling Objective #6

In the space provided, fill in the information about the specific instructional program for which you will be writing program goals.

Name of Department or Level: _____

Name of Program: _____

Grade Level: _____

Student Characteristics: _____

_____

Now turn the page to the Feedback section and check your answers.

Feedback

Check yes or no to each question.

Did you identify:	YES	NO
1. The specific department?	___	___
2. The specific instructional program?	___	___
3. The grade level?	___	___
4. Characteristics about the student that will be in the program (i.e., age, special needs, prerequisite skills, etc.)?	___	___

If you answered yes to all the questions, move on to the next section of the module.

If you missed any of the above questions, go back and read this section of the module again.

Write Program Goals

Terminal Performance Objective 1

Using your school setting or department (i.e., elementary, alternative education, English, science, business education), a program in that setting (i.e., college preparatory) and the criteria listed below, you will write a set of program goals (competencies) for a specific instructional program. Competencies must

a. be general
b. be student oriented
c. be behaviorally stated
d. describe student outcomes
e. not refer to conditions or evaluating criteria

Using these criteria for the specific instructional program you identifed, you are about to write five or more program goals. The following examples may help:

Example 1:

Name of Department or Level: Middle School English

Name of Program: General English

Grade Level: 4th-8th Grades

Student Characteristics: 12-14 years of age, C or better grades

Program Goals:

The student will:

1. Punctuate all written material
2. Compare and contrast people or data in writing
3. Use standard written grammar
4. Use standard written sentence structure
5. Use standard written paragraph structure
6. Identify intent or message of author in varying literature forms
7. Etc., continue until all program goals for the total instructional program have been written

Example 2:

Name of Department or Level: Industrial Arts

Name of Program: Architectural Drafting

Grade Level: 10th-12th Grades

Student Characteristics: 15-18 years of age, interested in making Architectural Drafting a career

Program Goals:

The student will:

1. Develop line work
2. Read blueprints
3. Carry out projection of views
4. Construct pictorial drawings
5. Identify the process necessary to secure a job
6. Construct floor plans
7. Apply dimensions to a drawing
8. Etc., continue until all program goals for the total instructional program have been written

One the next page is the Response Sheet for the Terminal Performance Objective. See if you can write program goals for your subject area.

Response Sheet for Terminal Performance Objective 1

Write a set of program goals for the specific instructional program which you identified. Include at least 15 competency statements.

PROGRAM GOALS:

Now turn the page to the Feedback section and check your answers.

Feedback

Check yes or no to each of the following questions.

Do your program goals:

	YES	NO
1. Make general statements?	___	___
2. Describe student-oriented behavioral statements?	___	___
3. Use a verb to describe student performance?	___	___
4. Identify competencies which take two or more performance objectives?	___	___
5. Contain no conditions or evaluative criteria?	___	___

If you answered yes to all the questions, move on to the next section of the module.

If you missed any of the above questions, go back and read this section of the module again.

Organize Program Goals Into Courses

Terminal Performance Objective 2

Using the program goals developed for terminal performance objective 1, you will organize these statements into courses or instructional units which reflect the sequence of instruction in your program.

Organize the program goals you have written into a logical hierarchy of difficulty from the simplest to the most complex. Next arrange them in a sequence of terms or courses which will be needed to accomplish the goals of the program. This program should consist of as many terms or courses which you feel it will take to complete all the goals.

You will usually find that several of the program goals appear in more than one course or one term's work. There is nothing wrong with this. In fact, this should be anticipated because it may take more than one term's work to accomplish that goal. The sequence of courses you write should be complete because you identified all the program goals for an instructional program. The following examples may help you organize your program goals.

Example 1:

Name of Department or Level: Middle School English

Name of Program: General English

Grade Level: 4th-8th grades

Student Characteristics: 9-13 years of age, C or better grades

COURSE NAME	GOALS	TERMS
4th Grade English	#1 - punctuate all written material	1
	#3 - use standard written grammar	
	#4 - use standard written sentence structure	
5th Grade English	#1 - punctuate all written material	1
	#3 - use standard written grammar	
	#4 - develop standard written sentence structure	
	#5 - develop standard written paragraph structure	
6th Grade English	#1 - punctuate all written material	1
	#2 - compare and contrast people or data in writing	
	#3 - use standard written grammar	
	#4 - develop standard written sentence structure	
	#5 - develop standard written paragraph structure	

Notice the repetition of program goals.

Example 2:

Name of Department or Level: Industrial Arts

Name of Program: Architectural Drafting

Grade Level: 10th-12th Grades

Student Characteristics: 15-18 years of age, interested in making Architectural Drafting a career

COURSE NAME	GOALS	TERMS
Architectural Drafting I	#1 - develop line work	1
	#2 - read blueprints	
	#3 - carry out projection of views	
	#6 - construct floor plans	
Architectural Drafting II	#1 - develop line work	1
	#3 - carry out projection of views	
	#4 - construct pictorial drawings	
	#7 - apply dimensions to a drawing	
Architectural Drafting III	#1 - develop line work	1
	#5 - identify the process necessary to secure a job	
	#6 - construct floor plans	
	#7 - apply dimensions to a drawing	
	*continue organizing the goals into courses	

Notice the repetition of program goals.

On the next page is the Response Sheet for Terminal Performance Objective 2. See if you can organize your program goals.

Response Sheet for Terminal Performance Objective 2

Using the program goals you wrote for the preceding section of the module, list the courses in sequential order and indicate which competencies will be taught. Write the competency number only.

COURSE #	COURSE NAME	NO. SEMESTERS	COMPETENCIES
1st			
2nd			
3rd			
4th			
5th			
6th			
7th			
8th			

Now turn the page to the Feedback section and check your answers.

Feedback

Check yes or no to each of the following questions.

	YES	NO
1. Did you list the courses in your instructional program?	___	___
2. Did you identify each competency with the appropriate courses?	___	___
3. Did several of your program goals appear in one or more courses?	___	___

If you answered yes to all the questions, move on to the next section of the module.

If you missed any of the above questions, go back and read this section of the module again.

VII. EXIT TEST

The Exit Test is administered to assess achievement. Are you ready for the final evaluation? Do you have any questions? If so, see your instructor or an expert in your school district for help. If not, go on to the Exit Test.

THE TEST

The Exit Test for this module is to show successful completion of the response sheets for the terminal performance objectives. Therefore, turn in the response sheets for Terminal Performance Objectives 1 and 2 (pages 55 and 60) to your instructor. These activities encompass all of the learning in this module.

APPENDIX A

SOME ACTION VERBS
FOR USE IN PROGRAM GOALS

APPENDIX A

SOME ACTION VERBS FOR USE IN PROGRAM GOALS[1]

accept	employ	procure
acknowledge	encourage	promote
adapt	engage	provide
administer	enrich	publicize
affiliate	establish	recognize
aid	evaluate	recommend
analyze	exchange	record
appraise	examine	recruit
apply	expand	refer
approve	express	reinforce
arrange	formulate	represent
assess	gather	review
assemble	give	schedule
assign	guide	seek
assist	identify	select
carry-out	illustrate	send
check	implement	sequence
collect	inform	serve
communicate	interpret	solicit
compile	interview	speak
conduct	introduce	specify
confer	invite	sponsor
contact	involve	structure
consult	keep	study
control	lead	suggest
convince	maintain	supply
correlate	match	support
demonstrate	obtain	supervise
describe	organize	up-date
design	orient	uphold
determine	participate	use
devise	persuade	work
direct	plan	write
disseminate	present	

[1]Adapted from Terry, David R., Thompson, Randall L., and Rupert, Evans N. Competencies for Teachers, Vocational Education Shows the Way. Report of June, 1972.

NOTE: When using any of these verbs, REMEMBER the competency must be stated in such a manner that it describes what the student will be able to do at the end of the program.

COMMUNITY COLLEGE APPLICATION

PROGRAM GOALS OR COMPETENCIES

Before you read Module #1, read this and think of your community college situation . . .

When students enter a community college vocational education program, they are probably looking to the day when they will enter the labor market as certified perofessional. Students most likely will take that job after completion of the community college program, but the program may be only the first step in their training; they may continue to college and then enter the labor market. Some will already be on the job, and will be taking these formal courses to supplement their on-the-job learning experiences, and promote a quicker rise on a career ladder.

Just as students are primarly looking to graduation, effective instructors also look to those skills, knowledge, and judgment which their students will exhibit at the end of a program. Regradless of the course the instructor teaches and its place in the program sequence, the goal is competent graduates.

Competency-based education is a process which emphasizes this goal orientation. While we are all concerned with "our courses" and "our students", we know that the most important thing is the achievement of the goals of the entire program. An orientation only towards the skills at the end of the course we teach, does not necessarily serve students. We need to be keeping the total educational picture in mind, so we can contribute to those goals.

Theoretically, this sounds logical and easy to live with, but in the real world of community college instruction, it is at times difficult to accomplish. College professors tend to work only in one small area of specialization. Often there is little or no planned contact with other professors who teach in other parts of the program This is especially true with part-time instructors in the community college.

Because of the particular constraints in community college instruction, it becomes even more critical that one set of program goals or competencies exist for each community college program. A program is defined as a series of courses which lead students to achieve prespecified goals and objectives on a systematic basis. So the planning for a set of program goals must be done in a cooperation venture with the faculty and advisory committees. This planning creates a basis of communication, and understanding about what the other instructors are doing in their classes. Sometimes, this planning points out that persons on the same staff are working at cross purposes without even realizing it.

Part-time instructors in the community college may not be able to participate in the planning process. In this case, the department chairperson will probably provide the part-time instructor with the list of competencies developed by the full-time staff. Still, it is important for the part-time person to understand the meaning of these goals and the process for arriving at the list. Perhaps the part-time person can help the full-time staff by recognizing some errors which the planners did not identify because they were too close to the program. So, all instructors

in a community college vocational program, whether full-time or part-time, should be involved in either the development or review of the program's set of competencies.

As you read through this module, try to think, not of the course you are teaching, but rather of the entire program which your students will be completing. Of course, the content of "your" course should be reflected in the list, but a particular goal may not be written specifically for your course, or for any one course. This does not mean the course you teach is not important; instead, it means that this course is but a part of a larger picture.

After you read Module #1, read this and consider applications to community college programs . . .

At this point, you should have tried your skills as a writer of program goals or competencies. So, you've got a list of statements which presumably you think are "OK". But perhaps you can review your list again and see if there are any errors after reading this part of the community college application. Here, you will find two things;

1. sample community college program goals and an analysis of them which shows typical kinds of mistakes which are made, and

2. complete sets of program goals for a few community college programs.

Let's first examine a program goal from a community college dental assistant program:

> EACH STUDENT WILL BE ABLE TO DESCRIBE, IDENTIFY, PERPARE, AND MAINTAIN TOPICAL AND LOCAL ANESTHETIC ARMAMENTARIUM.

Ignore the technical language, and concentrate on the behaviors required. "Describe" and "identify" are low level steps at the beginning of a program, but much more than that is required of graduates. "Prepare" and "maintain" move into laboratory types of experiences. When one actually does prepare and maintain, it is inherent in the process that the student would be able to describe and identify. The program goal should reflect the more difficult, the more complex skill. (Performance objectives will describe the steps in achieving the goal, but you will be coming to that later.) Thus, Rule #1 is:

WRITE COMPETENCIES AT THE HIGHER LEVEL OF BEHAVIOR,
THE LEVEL EXPECTED OF GRADUATES

This rule reflects the programmatic thrust of CBE. The instructor of the earlier courses in the program in which they do "describe" and "identify" would probably want to see those activities stated in the goal. But this would be phrasing the goal at a lower level of expertise, and not the level of graduate behavior.

Next, there are two program goals from a community college architectonics program.

THE STUDENT WILL ANALYZE DATA ON PROJECT CONSTRUCTION COST.

THE STUDENT WILL PREPARE PRELIMINARY COST ESTIMATES.

These two goals are very closely related. In fact, they are steps in a single process. This pattern is sometimes seen in a list of competencies. Actually, this is just one way of writing program goals which are too specific. These could be combined into a more general statement, such as "The student will make preliminary cost estimates

of a construction job." Then the new competency would replace the two previous ones. This streamlines the list, puts the competency at a higher level of behavior, and follows Rule #2 which is . . .

WRITE GENERAL COMPETENCIES UNDER WHICH

SEVERAL COMPONENTS CAN BE SUBSUMED

Now, review this competency from a community college nursing assistant program:

TO PROVIDE STUDENTS WITH SKILLS TO PREPARE A PATIENT UNIT. THIS INCLUDES KNOWLEDGE OF STANDARD EQUIPMENT AND LINEN. STUDENTS WILL ALSO MAKE SEVERAL DIFFERENT TYPES OF BEDS, WHILE PROVIDING A SAFE AND COMFORTABLE ENVIRONMENT FOR THE PATIENT.

Rule #3 is:

KEEP THE COMPETENCY STATEMENTS SHORT

Usually when all of the techniques are followed which are presented in the module, you'll find that the statements do become fairly short. Let's see how this could be revised. First, the goal is to be written in term of student behavior. So, this one could simply be . . .

THE STUDENT WILL PREPARE A PATIENT UNIT

The remaining information would be included in a series of performance objectives. The new competency is general, written in terms of student behaviors and does <u>not</u> include any conditions or criteria.

The above are a few additional rules which can be applied when applying drafts of community college program goals or competencies. When these rules and the guidelines presented in this module are followed you could have a set of program goals for one entire program

which look like those which follow. Here are two sets, one for a community college Clerk-typist program, and another for a community college auto mechanics program. Review these carefully; see if you have any questions; compare the list you have prepared for your program with these two. If you see any errors which you may have made, correct your list before progressing to the final examination for this module.

Auto Mechanics Program Goals

The student will:

1. diagnose and repair problems in auto fuel systems
2. diagnose and repair minor problems in auto electrical systems
3. inspect and repair auto brake systems
4. replace auto shocks and springs
5. diagnose auto engine problems
6. make minor engine repairs
7. diagnose transmission problems and perform periodic required maintenance
8. perform regular periodic maintenance
9. diagnose and repair problems in auto cooling systems
10. do an auto tune up
11. remove and replace normal expendable auto parts, i.e. belts, hoses, etc.
12. repair auto drive systems
13. remove, repair or replace and balance auto tires
14. identify and order parts
15. test an auto after repairs are made
16. write a proper work order
17. repair auto exhaust systems
18. use auto technical manuals effectively
19. identify the related occupational areas to auto mechanics
20. identify those resources available to the auto mechanic
21. install or remove and replace auto accessories.

Clerk Typist Program Goals

The student will:

1. prepare stencils and masters
2. operate reproducing machines
3. apply typing skills when completing letters, business forms, reports, etc.
4. apply basic rules of filing when sorting and storing office correspondence
5. use test-taking techniques when completing employment tests
6. analyze materials which describe career alternatives
7. use work-simplification techniques when completing office tasks
8. change ribbons on typewriters, calculators, and adding machines
9. demonstrate desirable work habits such as promptness, courtesy towards others, proper maintenance of equipment, and maintaining orderly work stations
10. transcribe, on the typewriter, business letters and memos from recorded tapes or belts
11. compose business letters and memos
12. apply problem solving techniques when developing priority schedules for completing office tasks.
13. use reference sources when working with business letters, reports, or memos
14. apply prescribed techniques when using the telephone and greeting office callers
15. perform basic arithmetical operations on adding and calculating machines when completing business forms and reports.
16. compile a portfolio which will include: samples of work completed, a resume, and personal references.